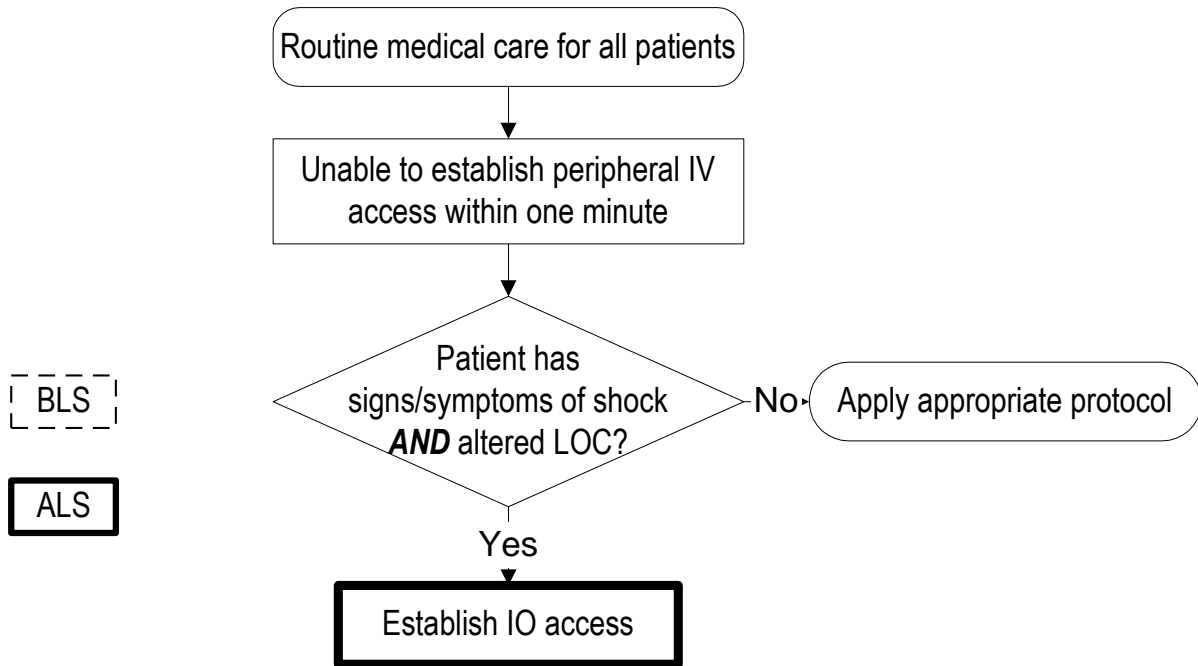


Initiated: 12/10/86
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Revision: 8

**MILWAUKEE COUNTY EMS  
MEDICAL PROTOCOL  
INTRAOSSEOUS INFUSION**

Approved by: Ronald Pirrallo, MD, MHSA
Signature:
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**Notes:**

- Inability to locate an appropriate vein site is equivalent to an attempt. It is not necessary to actually penetrate the skin with a needle *for this protocol only*.
- Contraindications to the use of the intraosseous route are major extremity trauma (fractured femur/tibia or evidence of internal/external thigh hemorrhage), and area of infection over the proposed insertion site (infected skin, abscess, etc.).
- The preferred order of route of administration for parenteral medications in immediate life-threatening situations is (due to effectiveness): peripheral IV, chronic indwelling catheter with external port, IO, ET.